Scott M. Matheson Governor Mail Sur Dil Gas Mining

## STATE OF UNAMEDEPARTMENT OF HEALTH

## DIVISION OF ENVIRONMENTAL HEALTH

150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110



James O. Mason, M.D., Dr.P.H. Executive Director 801-533-6111

## DIVISIONS

Community Health Services Environmental Health Family Health Services Health Care Financing and Standards

## OFFICES

Administrative Services Health Planning and Policy Development Medical Examiner State Health Laboratory 533-6146 September 2, 1980

Rusty Lundberg Environmental Engineer Geokinetics Inc. 582 North Vernal Ave. Vernal, Utah 84070 Alvin E. Rickers, Director Room 426 801-533-6121

WATER POLLUTION CONTROL OF DESIGN/EVALUATION

PLANNING MONITORING ENPORCEMENT

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RE: Construction Permit

Wastewater Evaporation Pond

Dear Mr. Lundberg:

Geokinetics Inc. proposal to construct an evaporation pond for the in-situ retort pilot project has been reviewed. The Plans appear to conform with the Code of Waste Disposal Regulations and a construction permit is hereby issued subject to the following conditions:

- 1. Analyses from monitoring well samples located in the vicinity of the retort and wastewater pond should be submitted to this office. Approximately 12 monitoring wells will be located around the retort and approximately 8 monitoring wells will be located around the pond.
- The emergency overflow pipe should be located on the opposite side of the pond from the inlet pipe.
- It is recommended that rip rap be placed on the inside of the dike where the inlet discharges into the pond.
- 4. After the project is complete the pond must not be abandoned until the water has completely evaporated from the pond and the residue is appropriately disposed of.
- 5. Activation of the emergency overflow device will constitute a violation of the construction permit. The pond should therefore be monitored very closely and any expansion should be planned in advance prior to the water level approaching overflow conditions. Approval for such must be issued by this office following a review of the plans and specifications, prior to construction.

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DIVISION OF GAS & MINING 6. It is also our understanding that the inlet and overflow lines are to be 4 inches in diameter.

The evaporation pond will have a surface area of approximately 1.43 acres. The pond bottom will be lined with 35 mil thick CPR liner. Based on an evaporation rate of 24 inches per year the pond should adequately contain the wastewater flow of approximately 110 barrels per day for the duration of the 26 month project. The wastewater will consist of condensed steam, perched water and water separated from the product in the retorting operation. The water will have a TDS concentration of 22,000 gm/l. If you have any further questions please contact us.

Sincerely,

UTAH WATER POLLUTION COMMITTEE

Calvin K. Sudweeks Executive Secretary

RLR: laf

cc: Uintah District Health Department